STI FORUM

Science, Technology & Innovation for the Sustainable Development Goals

Seventh annual Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals

Thematic Session 1: Science, Technology, and Innovation at the COVID-19 Conjuncture

(15:00-16:00 EDT, 5 May 2022; hybrid format)

Background

Science, technology and innovation have been in the global spotlight during the COVID-19 pandemic proving to be one of humanity's most valuable resources for responding to global challenges and advancing the well-being of current and future generations. Vaccines were developed in record time through knowledge shared across borders and sectors; the application of digital technologies was scaled up to support social and economic systems while social distancing and stay-at-home orders were in effect. The world has seen how much progress can be made through STI in a short time when driven by a common motivation and with strong and open avenues for collaboration. At this conjuncture, the potential of STI to build resilience against and prevent future crises and to support progress toward realizing the aspirations of the 2030 Agenda for Sustainable Development is clear.

At the same time, a crisis like the COVID-19 pandemic has long been predicted – the rapid vaccine development that seemed to materialize overnight was based on years of research. It is also known that there will be future pandemics. This raises questions about how to ensure that science, technology and innovation (STI) systems are fit for future crises, including pandemics. The world is at conjuncture with COVID-19 that can be leveraged to move beyond a rapid response approach to one that uses STI with purpose to build long-term resilience.

There are other lessons that can be taken from the pandemic to strengthen the role of STI for bettering society. One relates to inequality – reflected in the unjustifiable circumstances of unequal access to vaccines first and foremost, but also realized through unequal access to digital technologies and unequal capacities and resources for contributing to STI solutions to address global challenges.

Objectives

This session will explore lessons from the COVID-19 pandemic for a better science-policy-society interface, a resilient, sustainable and inclusive recovery, and rapid solutions for global challenges. It will consider how science can prepare for a future with pandemics, extreme weather, and other risks and build toward long-term resilience. The discussion will be based on recent STI trends, outlooks, and socio-economic impacts, and the role of STI in the recovery from COVID-19. It would feature emerging science and technology, discuss what it means for development perspectives and explore options for the way forward. It could also highlight key issues of the science-policy-society interface. South-South cooperation and research funding to support inclusive STI progress that is aligned with the SDGs will also feature in the discussion.

Format

The session will be structured as a moderated panel discussion (5 minutes per panelist). After the panelists' interventions, the moderator will take comments and questions from the audience during an interactive discussion. The session will close with a brief presentation of main outcomes of the discussion by the moderator.

Guiding questions

The discussion will be guided by the following questions:

- What lessons from the COVID-19 pandemic or emerging technologies can be applied to ensure that STI contributes to building resilience against and/or preventing future crises whether they are pandemics or climate related disasters?
- What are some of the most promising shifts in the science-policy-society interface that have developed as the world responded to the pandemic? How can these be further strengthened?
- What kinds of policies and institutions are needed to ensure that pandemic related STI shifts are inclusive and align with progress toward the SDGs?

Supporting documents/publications

The following science-policy briefs have been prepared by TFM stakeholders in support of this session (see also https://sdgs.un.org/tfm/STIForum2022 and IATT report 2022).

- Lessons from COVID-19 for policy and the science-policy-society interface
    - *COVID19: Lessons for a better use of digital technologies*, by Maryline Mangenot (MSc Sustainable Development, University College Dublin, Ireland)
    - *Governing uncertainty in pandemic times: connecting national standards to the world*, by Doyoung Lee (Korea Research Institute of Standards and Science, Republic of Korea).
    - *COVID-19 and computational sciences: data variety can be an enabler for good science–if properly utilized*, by Mayank Kejriwal (Viterbi School of Engineering, University of Southern California).
- Specific technologies and solutions
    - *What can be done about the discarded face mask pandemic? An innovative engineering solution*, by Omar Elhawary and Venkat Bakthavatchalaam (University of the West of England, UK)
    - *COVID-19 Impacts on Community Littering: A Strategy for Mitigation*, by Miranda Kemp, Cher Zheng, April (Yueyang) Wu, Paige Flanery (Pratt Institute, USA)
    - *GreenPath*, by Bradley Ahmic, Owen Beitel, Jessica Kayll & Jade Carter (Pratt Institute)
- National and local experiences and updates
    - *The Philippines' science-based support in the middle of the pandemic* (Submission by the Government of the Philippines)
    - Policy recommendations to reduce food insecurity in New York City, by Judith-Faith Williams Cadet, Kathryn Miller, Skye Prosper, and Xin Xu (Pratt Institute, USA)

- *COVID-19 and social conflicts: policies from South Korea's experience*, by Min, Jeehye (Science and Technology Policy Institute, Republic of Korea)
- *Workplace Well-being*, by Yishi Wang, Richa Verma, Sabrina Casilla, Tito Nawat and Lucy Vitale (Pratt Institute, USA)

- Relevant DESA policy briefs:
  - *The monetary policy response to COVID-19: the role of asset purchase programmes*. UN DESA Policy Brief No. 129, Feb. 2022, PDF.
  - *How the data and statistical community stepped up to the new challenges*, UN DESA Policy Brief #96: COVID-19, March 2021, Web.
  - *Strengthening Data Governance for Effective Use of Open Data and Big Data Analytics for Combating COVID-19*, UN/DESA Policy Brief #89, Dec.2020, Web.
  - *The COVID-19 pandemic: a wake-up call for better cooperation at the science–policy–society interface*, UN/DESA Policy Brief #62, April 2020, PDF.
  - *COVID-19: Embracing digital government during the pandemic and beyond*, UN/DESA Policy Brief #61, April 2020, PDF.